

R E M A R K S

Claims 1-3 and 5-15 are currently pending in this application and awaiting action on the merits.

Summary of Personal Interview

Applicant thanks Examiner Chang for the courtesy of a personal interview on June 14, 2007. Applicant appreciates the Examiner's statement that the Watanabe reference is not part of the outstanding rejection. Therefore, it is Applicant's understanding that any reference to Watanabe in the body of the outstanding rejection or otherwise in support of the outstanding rejection is improper (i.e., Final Office Action, page 6, last line), and that any further action by the Examiner should not include reference to Watanabe unless specifically relied upon by the Examiner in support of a rejection.

Rejection under 35 USC § 102 or 103

Claims 1-5, 14 and 15 stand rejected under 35 USC § 102(b) as being anticipated by, or in the alternative, under 35 USC § 103(a) as obvious over US Patent 4,816,333 to Lange et al. (hereinafter "Lange"). Applicant respectfully traverses.

Lange differs from the present invention in that it has no teaching or suggestion of the claimed method for forming moniliform silica strings. Lange simply describes the use of a solution containing colloidal silica particles having an average primary particle size less than about 200 Å (i.e., 20 nm) (see, for example, col. 5, lines 1 to 7 of Lange).

Further, it should be noted that Lange attempts to prevent the agglomeration of silica particles used for preparing a coating composition as is apparent from the following description:

"The colloidal solution, finely divided solid silica particles of ultramicroscopic size in a liquid, utilized in the present invention, may be acid stabilized, sodium stabilized, or ammonia stabilized. It is especially helpful to acidify sodium stabilized silica sols to a pH of about 3.5 to 4.0, e.g., with glacial acetic acid, to prevent particle agglomeration prior to preparation of the coating solution when alcohol is used as a diluent." (emphasis added)(col. 5, lines 28 to 36)."

Thus, Lange has no teaching or suggestion about the formation of moniliform silica strings but, rather, teaches away from the use of agglomerated silica particles, such as moniliform silica strings, in a coating composition for producing an antireflection film.

From the above, it is apparent that Lange describes only the use of separate, non-linked silica particles. Needless to say, when separate, non-linked silica particles (having a primary particle size of less than 20 nm) used in Lange are agglomerated in substantially closest packed form as shown in Fig. 9 of the present application, it is impossible to obtain a silica layer having a large number of large pores such that the formula (1) " $(S_{(a2+3\sigma)})/(S) \geq 0.5$ " is satisfied.

Specifically, in the present invention, by the use of the moniliform silica strings, the laminate structure of the present invention comprises a porous silica layer having a large number of large pores such that the formula (1) " $(S_{(a2+3\sigma)})/(S) \geq 0.5$ " is satisfied. By virtue of this feature, the laminate structure of the present invention is different from that disclosed in Lange in that the porous silica layer has not only low refractivity and high light transmittance but also high

strength, so that the laminated structure can be advantageously used as an antireflection material, such as an antireflection film (page 1, lines 19 to 25 of the present specification).

In summary, the presently claimed silica laminated structure, coating composition and anti-reflection film is made by a process that yields a product different from that disclosed in Lange. The presently claimed invention achieves a novel and unobvious product that possess a porous silica layer that has a large number of large pores such that the formula (1) “ $(S_{(a2+3\sigma)})/(S) \geq 0.5$ ” is satisfied. Thus, Applicant has sufficiently rebutted the Examiner’s allegation that the products of the claimed invention and Lange are the same or that the claimed invention is obvious thereover. Applicant respectfully requests reconsideration and withdrawal of the outstanding rejection.

Conclusion

Entry of the above amendments is earnestly solicited. An early and favorable first action on the merits is earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Monique T. Cole, Reg. No. 60,154 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

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Respectfully submitted,

By J.W.Bailey # 32,881
John W. Bailey
Registration No.: 32,881
BIRCH, STEWART, KOLASCH & BIRCH, LLP
8110 Gatehouse Road
Suite 100 East
P.O. Box 747
Falls Church, Virginia 22040-0747
(703) 205-8000
Attorney for Applicant